

### REMARKS

Applicant provides a program receiver for a subscriber or viewer in a communications network. The program receiver is capable of receiving multiplexed signals consisting of a program signal with content and graphical interactive picture structure specification data specifying, by a script a specific structure of a graphical interactive picture, for example one that can correspond to the program and can be altered in an interactive operation by the user independent of the content of the motion picture program, or in a manner complementary to watching the motion picture program.

The television programming receiver receives the multiplex signal consisting of the program signal and a unique storage signal of the present invention, see Page 90, Lines 23-24. While the program signal consists largely of the television programming content, the unique structured signal contains information for generating interactive display objects such as panels, boxes, buttons and text that allows viewers to interact with a television.

A signal separation unit 5012, shown for example in Figure 50A, separates the multiplex signals for further processing by interactive screen (IS) generation unit 5014. The IS generation unit 5014 receives the signals, processes them and displays them on an interactive screen to viewers. The IS generation unit 5014, however, also receives data from a viewer operated with remote control 6501. Thus, the viewer, using the remote control 6501, can interact with a television set through the interactive display objects presented on the television screen.

According to the present invention, the receiver side separates the graphical-interactive-picture-structure specification data, which is in the form of a script, from a received signal and determines the structure of the screen using the separated graphical-interactive-picture-structure specification data. Such a structure of the present invention is very convenient in that it enables

each user to customize the graphical interactive picture for each receiver by taking into account the hardware performance of the receiver and the preference of the user.

It is unrealistic for the broadcast station side to prepare, for each broadcast program, as many programs for controlling the screen display as the number of types of broadcast receiving devices. Suppose, for example, a case where the broadcast station transmits a broadcast in compliance with the NTSC standard defining the aspect ratio of 4:3, and a receiver has a monitor with the aspect ratio of 16:9. In this case, the user of the receiver has the following three choices of how to display the screen:

- (a) to extend horizontally the received broadcast to the 16:9 ratio;
- (b) to display the received broadcast such that the upper and lower ends thereof match those of the screen, and display back both sides of the broadcast; and
- (c) to display the received broadcast such that the right and left ends thereof match those of the screen, and cut upper and/or lower parts of the broadcast.

The present invention has a structure where the broadcast station side transmits a script specifying the screen structure, and the receiver side generates and displays a graphical interactive picture appropriately based on the script in accordance with the display performance of the receiver. Such a structure of the present invention is flexible enough to cope with whatever screen display method the user may choose.

The present invention has utilized "means for" claim elements under 35 U.S.C. §112, sixth paragraph. The case of *In re Donaldson Company*, 16 F.3d 189, 29 USPQ2d 1845 (Fed. Cir. 1994) (in banc) imposes upon the United States Patent Office the requirement that the prior art reference must not only teach the identify of the functions specified in the claim, but also the Examiner has the initial burden of proof for showing that the prior art structure is equivalent to

the structure, material or steps described in our specification which have been identified as corresponding to the claim means plus function elements. See MPEP 2182.

The “means plus function” limitation should be interpreted in a manner consistent with our specification disclosure. The Federal Circuit explained the two step analysis involved in construing means-plus-function limitations in *Golight Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1333-34, 69 USPQ2d 1481, 1486 (Fed. Cir. 2004):

The first step in construing a means-plus-function claim limitation is to define the particular function of the claim limitation. *Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1376 [58 USPQ2d] (Fed. Cir. 2001). “The court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and only those limitations.” *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 [63 USPQ2d 1725, 1730] (Fed. Cir. 2002).... The next step in construing a means-plus-function claim limitation is to look to the specification and identify the corresponding structure for that function. “Under this second step, ‘structure disclosed in the specification is “corresponding” structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.’” *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 [68 USPQ2d 1263, 1267] (Fed. Cir. 2003) (quoting *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1429, 1424 [43 USPQ2d 1896, 1900] (Fed. Cir. 1998)).

Support for these “means for” elements in our specification and drawings are as follows.

Figure 50A shows the signal separation unit 5012, the RM signal receipt unit 5011, and the IS generation unit 5014 of Figure 50 and the remote control 6501 of Figure 65. The radio frequency relationship of the remote control 6501 of Figure 65 and the RM signal receipt unit 5011 of Figure 50 now shown in Figure 50A is described in the specification (Application, Page 101, Lines 21-23). Also shown in Figure 50A are the individual components of the IS generation unit 5014 as described in the specification (Application, Page 92, Lines 9-18). The IS generation

unit 5014 includes a first receipt unit 5050, a second receipt unit 5052, a process unit 5054, a storage unit 5056, and a display unit 5058, (Application, Page 92, Lines 9-18).

The first graphical interactive picture generation means includes the first receipt unit 5050, the process unit 5054, the storage unit 5056, and the display unit 5058 of the IS generation unit 5014. The second graphical interactive picture generation means includes the second receipt unit 5052, the process unit 5054, the storage unit 5056, and the display unit 5058. The interactive generation means includes the remote control 6501 and the RM signal generation unit 5016.

The recited function is important because this feature provides for a dynamic interactive viewing experience. The structural data can include class definitions, panel definitions, box definitions, action definitions, display candidate information, as well as shape definition (Application, Page 92 Line 21 – Page 93 Line 3). The structural data is used by the IS generation unit to generate an interactive picture screen. The interactive picture screen generated with the received structural data provides the user with a dynamic interactive experience with the screen's structure as well as programming adapting and changing according to a user's inputs.

The Office Action provided an obviousness-type double patenting rejection on Claims 37-47 and 49-59 over the parent U.S. Patent No. 5,648,813.

Attached hereto is a Terminal Disclaimer to moot this rejection.

The Office Action further contended that the newly cited *Baji et al.* (U.S. Patent No. 5,027,400) completely anticipated the subject matter of Claims 37-47 and 49-59 under 35 U.S.C. §102.

With regards to Claims 37-47, the Office Action did not identify the claim elements in the corresponding structure, for example in Claim 37 relative to the “means for” claim elements.

Applicant respectfully submits that the *Baji et al.* reference does not teach any equivalent structure that would function in the manner of our present invention to justify an anticipatory rejection.

“An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention.” *See In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 678, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

The *Baji et al.* reference purportedly was concerned with a capacity to provide a broadband ISDN broadcast system that would enable the subscriber or user to lower the cost of the subscription by agreeing to insertion of advertisements that would let the content provider have a source of revenue and thereby be capable of providing a lower charge to the subscribers.

This is clearly set forth in Column 3, Lines 30-39 as follows:

It is therefore an object of the present invention to provide a broadband ISDN broadcast system with means for effecting a sophisticated processing of advertisement and for achieving an easy access to a desired program.

In addition, another object of the present invention is to provide the cable television system with means for efficiently using the limited number of channels so as to cope with the various requests of the subscribers with respect to the advertisement and programs.

Additionally, as can be seen from Table 1 at the bottom of Column 3 and the top of Column 4, the charging state is linked to the presence and location of advertisement in the presentation to the subscriber.

To appreciate an overall view of the disclosure of the *Baji et al.* reference, Figure 1-1 discloses a schematic block diagram of the broadband ISDN broadcast system disclosing the basis system associated with a commercial insertion and hierarchical access.

As can be seen, the broadcast station (head end) 115 discloses schematically the manner in which content is assembled and forwarded to the subscriber system 116. Preparing the data stream shown, for example in Figure 9, with headers and control information, enable the advertisement insertion to be assembled and forwarded to the subscriber's system. Selections by the subscriber can be provided to a database control table so that commercials from a commercial database 131 can be integrated into the display. See Figure 10.

As can be appreciated, the subscriber system can select, for example placement of the commercials and the data stream can provide control information including timing based on the number of frames prior to the commercial insertion point.

The subscriber system has the capacity to download and temporarily store commercials in a commercial buffer 160, and also for storing program data in a program buffer 161. A mixer 162 can compose or mix viewing signal to the television monitor.

It should be relatively clear that the subscriber's choice is only to determine the level of commercial content that it will accept and to a lesser degree, where the commercial is to be inserted. The commercial itself, however, is certainly not reconfigured, abrogated or editorialized by the subscriber. That is, the subscriber does not interact with the content, and there is no script provided that permits any alteration of the commercial either by the subscriber or in coordination with the program content.

The *Baji et al.* reference discloses a number of different embodiments that provide alterations to this basic structure. For example, embodiment 3 permits the video buffers to be on the head end side. Embodiment 4 is directed to increasing the ease of a retrieval operation of a program from a large number of motion picture databases.

The provision, however, of a hierarchical multimedia retrieval through a title database that would permit, for example a preview or snippet of the program to permit the subscriber to make a choice, still does not alter the fact that the user is not interacting nor customizing a graphical interactive picture structure specification data in the manner of the present invention to achieve the same purpose.

For example, the Office Action contended that a first graphical interactive picture generation means for generating a graphical interactive picture (GIP) was taught, for example in Column 1, Lines 6-39. With due respect, however, this statement of background information does not suggest this "means for" element of our current claims.

The Office Action further referred to Column 10, Line 49 to Column 11, Line 1. This disclosure, however, simply recognized the large storage requirement for a 60 second commercial and the necessity to have an optical disk rather than a semiconductor memory. Column 12, Lines 24-68 was further cited and this description basically disclosed the schematic of Figure 15 relating to Embodiment 4. When reviewing the complementary disclosure of Figure 16, it simply indicates that a tablet 136 that could display a menu would permit a user, by finger pressure, to provide an electronic input. This definition of a remote control device still does not address the features of our current claims.

Column 19, Lines 11-68 were directed to Figure 28 and embodiment 8. In this regard, a short version cache memory 166 could receive downloaded chart versions of titles which could then be reviewed by the user. The tablet or remote controller of Figure 16 could be utilized to simply select to play a choice of the user.

Finally, Column 20, Line 24 through Column 13, Line 4 was cited, which encompassed the ninth Embodiment of the *Baji et al.* reference. This embodiment purportedly permitted home

shopping services along with the insertion of advanced commercials into a bi-directional broadcast system. Examples of information sought, for example on a new product, is shown in the respective Figures 29A-D and Figures 30A, 30B, along with Figure 31A, and 31B.

As can be readily appreciated, the provision of this information is certainly not altered nor customized by the user. The user simply has menu items that he can select to receive controlled information from the source about the products.

Any contention that the indexing information of the *Baji et al.* reference, as is shown in Figure 9, is related to the graphical interactive picture structure specification data of the present invention is erroneous. The index information in *Baji et al.* is to enable a motion picture commercial to be inserted into a motion picture program that is transmitted to the subscriber. With the present invention, a viewer can receive the graphical interactive picture structure specification data at the receiver side of the broadcast system, and the viewer is then enabled to perform an interactive operation while he or she is watching a motion picture program or even a motion picture commercial. The viewer can perform this interactive operation independently of such viewing.

Clearly the graphical interactive picture structure and the specification data of the present invention is totally different from the index information utilized in the *Baji et al.* disclosure.

The Office Action referred to a directional filter 121 in the *Baji et al.* reference, Column 13, Lines 28-40 purportedly to disclose a signal separation means as defined in our present claims.

However, the directional filter 121, as shown in Figure 2-1, separates up-link and down-link signals. It does not separate a received signal into a program signal and a graphical interactive picture structure specification data signal as in the present invention. In this regard,



both the program signal and the graphical interactive picture structure specification data signal are downlink signals.

Thus, the directional filter of *Baji et al.* that purportedly defines a signal separation means, has different functions and would fail the first step in the two step analysis of the *In re Donaldson* case.

Figures 14B and 14C of *Baji et al.* show that characters such as Title A through Title D and a pointer to the preview motion picture screen 25 are downloaded. However, the alleged screen layout (graphical interactive picture structure) shown in Figures 14B and 14C of *Baji et al.* is readymade based on a pre-set program, and cannot be customized according to the performance or specifications of the receiver side.

*Baji et al.* basically relates to a technology for displaying a screen on the display of the subscriber's terminal so that the subscriber can select, on the displayed screen, a broadcast program to receive. The receiver side downloads the data of motion picture program titles or motion picture previews from the broadcast station. Further, the program for controlling the motion picture program selection screen is preliminarily stored in the memory of the terminal or downloaded from the broadcast station. *Baji et al.* neither discloses nor suggests that the control program is transmitted together with the broadcast program in a multiplexed state. Accordingly, *Baji et al.* allows only a screen of a fixed structure to be displayed.

In contrast, according to the present invention, the signal receipt means receives a signal that is a multiplex signal including a broadcast program and a graphical-interactive-picture-structure specification data specifying, by a script, a structure of a graphical interactive picture that corresponds to the broadcast program, and the receiver generates a graphical interactive picture based on the graphical-interactive-picture-structure specification data. This structure of

the present invention makes it possible for each receiver to display an interactive screen that is different for each broadcast program and is customized for the receiver.

As described above, the cited reference, *Baji et al.* does not disclose important “means for” elements of Claim 37. As can be readily appreciated, the dependent Claims 38-47 add additional features that are not suggested nor taught and specifically are not anticipated by the *Baji et al.* reference.

Claims 49-59 provide an alternative definition of a program receiver and the observations and arguments advanced above are also applicable to these claims.

In accordance with 37 CFR §1.116, the present Amendment has removed issues in contention and narrowed the issues for purposes of appeal. However, it is believed that the above comments have established that the *Baji et al.* reference is not an anticipatory reference, nor does it suggest or teach our present invention.

Accordingly, it is requested that reconsideration be made and that an early notification of allowance of the present application be issued.

If the Examiner believes a telephone interview will help further the prosecution of this case, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

**SNELL & WILMER L.L.P.**



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